What is claimed is:

1. A system for communicating an analog input signal as a modulated binary laser signal over a communication medium recovered as an output digital signal, the system comprising

a sigma delta modulator for receiving the analog input signal and modulating the analog signal into a modulated symbol signal,

a transmitter for converting the modulated symbol signal into the modulated binary laser signal, and for transmitting the modulated binary laser signal over the communication medium,

a receiver for receiving and detecting the modulated binary laser signal for providing a received symbol signal, and

a digital filter for filtering the symbol signal into the digital output signal.

2. The system of claim 1 wherein the transmitter comprises,

a symbol to binary converter for converting the modulated symbol signal from the sigma delta modulator into a converted digital signal, and

a pulse width modulator for modulating the laser signal by the converted digital signal into the modulated binary laser signal as a pulse width binary modulated laser signal communicated over the communication medium.

3. The system of claim 2 wherein the receiver comprises,

a pulse width detector receiving the pulse width modulated binary laser signal and for providing a detected binary signal, and

a binary to symbol converter for converting the detected binary signal into the received symbol signal.

4. The system of claim 3 wherein,

the pulse width detector is a pulse width quantizer detector,

the detected binary signal is a detected quantized signal,

the binary to symbol converter converts the detected quantized signal into the received symbol signal.

5. The system of claim 1 further comprising,

a timing recovery loop for generating a timing signal from the receive symbol signal for clocking the digital filter.

6. The system of claim 1 wherein,

the sigma delta modulator is a first order sigma delta modulator.

7. The system of claim 1 wherein,

the sigma delta modulator is a second order sigma delta modulator.

8. The system of claim 1 wherein the communication medium is a fiber optic.

9. The transmitter of claim 1 wherein the pulse width modulated laser signal is an on off shift keying signal.

10. The transmitter of claim 1 wherein the modulated signal is a phase shift keying signal.

11. A system for communicating an analog input signal as a pulse width modulated binary laser signal over a communication medium recovered as an output digital signal, the system comprising

a sigma delta modulator for receiving the analog input signal and modulating the analog signal into a modulated symbol signal,

a transmitter for converting the modulated symbol signal into a converted digital signal for pulse width modulating a laser signal into the pulse width modulated binary laser signal, and for transmitting the pulse width modulated binary laser signal over the communication medium,

a receiver for receiving and detecting the pulse width modulated binary laser signal to provide a detected binary signal and for converting the detected binary signal into a received symbol signal, and

a digital filter for filtering the symbol signal into the digital output signal.